

Notice of Allowability

Application No.

10/645,737

Applicant(s)

SHEPPARD ET AL.

Examiner

Art Unit

Taylor Victor Oh

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/15/05.
2. ☒ The allowed claim(s) is/are 18-20, 22-25, and 27-39, renumbered as claims 1-20.
3. ☒ The drawings filed on 21 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

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Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/3/05 has been entered.

The Status of Claims:

Claims 18-20, 22-25, and 27-39 are allowable.

Reasons of Allowance

I. The following is an examiner's statement of reasons for allowance:

- The close references for the current invention are Imperial Chemical House (GB 566,110) and Morris et al (U.S. 3,780,098) .
- The rejection of Claims 1, 3-9, 11-14, 16-24, 26-27, and 29-31 provisionally under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No. 10/645,734 has been withdrawn due to the Terminal Disclaimer filed on 9/14/04.

- The rejection of Claims 21,27, and 30 under 35 U.S.C. 112, first paragraph, has been withdrawn due to the modification made in the amendment.
- The rejection of Claims 1-2,13 , 18-19, 21,23, and 27 are rejected under 35 U.S.C. 112, second paragraph, has been withdrawn due to the modification made in the amendment.
- The rejection of Claim 26 under 35 U.S.C. 102(b) as being anticipated clearly by Zeitlin et al (U.S. 5,095,146) has been withdrawn due to the cancellation made in the amendment.
- The close prior art to the current invention are Scott et al (U.S. 4,158,738) and Zeitlin et al (U.S. 5,095,146).

Scott et al teaches a process of producing terephthalic acid by oxidation of para xylene in the following steps of :

- a. feeding a mixture of p-xylene, a lower monocarboxylic acid solvent, and water in the presence of cobalt and manganese, and bromine into an oxidation reactor at 210⁰ C in the presence of oxygen;
- b. removing the product as a slurry from the oxidizer;
- c. feeding the slurry of the terephthalic acid mixture to two additional crystallizers where the product is cooled to 105⁰ C;
- d. purifying the slurry of the terephthalic acid by filter.

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Zeitlin et al teaches a process of obtaining terephthalic acid with impurities of 150 ppm p-toluic acid content by crystallization using flash evaporation of solvent in 3 to 6 stirred crystallization zones .

The instant invention, however, differs the prior art in that none of the prior art teach that after the removal of the impurities from a crude carboxylic acid slurry by the solid-liquid displacement zone, the slurry is subjected to the oxidation and further treated with the solid-liquid separator to remove impurities at a high temperature of between 110 and 200⁰ C so as to produce purified carboxylic acid composition ; furthermore, Zeitlin et al teaches the process of obtaining pure terephthalic acid by crystallization using flash evaporation of solvent unlike the claimed invention; therefore, the prior art processes are completely different from the claimed invention.

Therefore, the claimed invention would not have been obvious to the person with an ordinary skill in the art because the combined processes by the prior art would not be led to arrive at the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning the communication after allowance such as sending all post-allowance correspondence should be directed to "Box Issue Fee" or faxed directly to PUBS at 703-305-8755. This will expedite the process of these papers.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rayh ✓
5/22/55

Cecilia J. Tsang
Cecilia J. Tsang
Supervisory Patent Examiner
Technology Center 1600